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The Internet as Idea: For a Transcendental Philosophy of Technology

Dominic Smith

Abstract: This article attempts to render the Internet an object of philosophical consideration. It does so by referring to Kant's transcendental approach. The argument is that Kant's "transcendental idealism" is one example of an approach focused on conditions that much contemporary philosophy of technology misunderstands or ignores. Diverse contemporary thinkers are engaged, including Verbeek, Brey, Stiegler, Clark and Chalmers, Feenberg, and Fuchs. The article considers how these thinkers stand in relation to tendencies towards determinism, subjectivism and excessive forms of optimism and pessimism in relation to the Internet. In terms of Kant's transcendental idealism, I argue that contemporary philosophy of technology does not go far enough in considering the Internet as a "regulative idea." In terms of broader transcendental approaches, I argue that openness to the transcendental calls into question presuppositions regarding what constitutes an "empirical" object of enquiry, opening philosophy of technology to important new areas of research.

Key words: Internet, philosophy of technology, transcendental argument, transcendental turn, Kant, regulative idea

Introduction

This article argues for a "transcendental" approach to philosophy of technology by considering a concrete technological artefact, the Internet.[1] To see why this may seem paradoxical, consider the following from Peter-Paul Verbeek:

> [Classical] philosophy of technology … approached its subject matter from a *transcendental* direction. Transcendental philosophy, which achieved its zenith in the work of Immanuel Kant, takes as its point of departure the [382] analysis of conditions of possibility ... [that] overstep and transcend … empirical reality…. The philosophy of technology needs to resist this "Orphic temptation" of looking backward. It must be confident that it will be able to get a full view of technology once it has left the realm of the transcendental and reenters the world of concrete materiality. (Verbeek 2005, 7-8, original emphasis)

Here, Verbeek expresses a *doxa* or "common sense" prevalent throughout much contemporary philosophy of technology.[2] This view implies that, before an "empirical turn" in the 1990s, philosophy of technology tended to be too "transcendental" (Verbeek 2011, 160). On this account, "classical philosophy of technology" failed to engage real technological artefacts in design, context, and use, and instead tended, in error, to reify "Technology" into a monolithic transcendental force beyond human reason and control (Achterhuis 2001, 3; Verbeek 2005, 2011; Brey 2008, 19-21, 2010; Feenberg 1999, 183; 2002, 9; 2009).

Against the *doxa*, this article argues that philosophy of technology has not been transcendental enough. By this, I mean that wherever philosophy of technology has tended to caricature the "transcendental" in the way outlined above, it has ignored the logical

coherence and genealogical influence of the "transcendental" as an approach to argument in philosophy. The "transcendental," as this article will characterise it, need not be construed as an otherworldly, abstract, or "transcendent" realm that calls on us to indulge an "Orphic temptation" of looking away from the empirical. Instead, drawing on considerations from authors such as Stroud (1968) and Stern (2013), I will argue that the "transcendental" should be read in terms of a form of argument that enquires into conditions for given empirical phenomena, and, moreover, that transcendental approaches can be acutely and immanently attuned to the empirical. To demonstrate the coherence of these claims, I will attempt to develop a "transcendental" approach to the Internet, a technological artefact which, as I will seek to show, calls into question established presuppositions about what constitutes an "empirical" object of enquiry. To demonstrate the genealogical influence of the "transcendental" in the history of philosophy, I will attempt to contextualise this approach in terms of a return to Kant.

The article is comprised of four parts. Part one states the case for viewing the Internet as an idea. By "idea," I mean that the Internet is a cultural phenomenon broader than the hardware, software, and types of usership implicated in it. In addition to those elements, the Internet is a set of values or norms implicated in regulating the contemporary experience of what it is to know, think, communicate, and be. The intention in describing the Internet in this manner is not to commit [383] to a form of "idealism,"[3] nor to reify it into an autonomous or technologically deterministic force;[4] rather, it is to attempt to render it an object of coherent philosophical consideration and critique, in terms of a set of norms with the capacity to impact diverse empirical contexts of contemporary life, both online and offline.

Part two uses examples from contemporary philosophy of technology (principally: Stiegler, and Clark and Chalmers) to argue that failure to approach the Internet as an idea can lead to determinist and subjectivist approaches to it. Through recourse to popular

literature on the Internet (principally: Schmidt and Cohen, and Carr), I argue that determinist and subjectivist approaches lend support to rhetorical excesses of optimism and pessimism, and that they can be resisted by a more thoroughgoing transcendental approach focused on the conditions of the Internet. I conclude this part by situating Feenberg's "Critical Theory of Technology" (2010) and Fuchs' "Critical Media and Information Studies" (2011) as approaches that in some ways run counter to the "empirical turn" *doxa* in contemporary philosophy of technology by having explicitly transcendental elements.

Part three outlines four clusters of value pertaining to the Internet, considered as an idea. These are not intended to be exhaustive or uncontroversial; rather, they are intended to be suggestive, in the hope that they may contribute to a more general transcendental attempt at identifying norms that contribute to making the Internet possible. The norms described are: 1) Neutrality; 2) Unity and Familiarity; 3) Connectivity, Novelty and Speed; 4) Supersession and Integration.

Part four concludes by arguing for a shift in perspective on these norms. I begin by arguing that Kant would describe the Internet as a "regulative idea." In the *Critique of Pure Reason*, Kant discusses three famous "regulative ideas" – "God", the "soul", and the "world" (Kant 2000, 605-623). His claim is that the entities referred to by these ideas can never be the object of a direct experience, but that they should nevertheless be presupposed as norms in order to give human conduct sense and unity; that is, that the limits of human reason require that human beings should act "as if" God, the soul and the world exist in order to give sense and unity to thought and experience. Having argued that Kant would view the relationship between "the Internet" and its users in a similar way, the article concludes by considering where this leaves transcendental approaches that do not accept Kant's metaphysical and normative presuppositions on the limits and purposes of human reason (such as those of Nietzsche, Derrida or Deleuze, for example). My claim is that such approaches expose the contingency of Kant's "as if," and that, in doing so, they point

towards the potential for a broad "transcendental turn" in philosophy of technology. This turn would not seek to repudiate the "empirical turn," rather, [384] it would seek to draw on the lineage of the transcendental approach in philosophy to be better focused on both "empirical" issues of fact and "transcendental" issues concerning conditions for these facts.

1. What Is the Internet?

Following the contributions of Kant's critical philosophy, there exists a precise way to define an object in philosophy. It consists of first describing the object as it appears, then analysing conditions under which its appearance is possible. The first task is empirical, in that it aims to establish the facts of the object. The second is "transcendental," in that it enquires into conditions that must be in place for facts concerning the object to be possible. As Stroud elaborates, using the terms of Kant's "transcendental idealism":

> Kant recognised two distinct questions which can be asked about concepts. The first – "the question of fact"- amounts to "How do we come to have this concept, and what is involved in our having it?"… But even if we knew what experiences or mental operations had been required … for us to have the concepts we do, Kant's second question – the "question of right" – would still not have been answered, since we would not yet have established our *right* to, or our *justification* for, the possession and employment of those concepts. (1968, 241)

Together, the two questions identified here of "fact" and "right" form the transcendental approach in philosophy. It will be the task of this article to apply this to a specific object, the Internet. The rationale for doing so is, first, to consider how this object is manifest today, and, second, to render it susceptible to critique in terms of its conditions.

There is an important sense in which the article will deviate from Stroud. This is because I take his approach to be too narrow – by focusing on "concepts", Stroud focuses on how transcendental arguments are to be employed in the Kantian epistemological tradition to refute the skeptic. In contrast, this article will focus on how transcendental arguments can be used in a wider sense, as part of any enquiry into the conditions of an object (whether "realist" or "idealist").[5]

As discussed in the introduction, the article will also deviate from much "empirical turn" philosophy of technology, where "transcendental" is used to describe "classical" approaches that are viewed as insufficiently empirical, in the vein of Heidegger, Ellul, Jaspers and Arendt (Brey 2008, 19-22; 2010; Verbeek 2005, 2011). This is because I take this move to be too broad: by including diverse think-[385]-ers under the "classical" banner, contemporary philosophy of technology tends towards caricaturing the transcendental in the same way that it takes "classical" thinkers to caricature "Technology".

The first question to be posed, then, concerns the empirical facts: how does the Internet appear to its users at this juncture of history? We might answer in terms of the following information circuit: as "output," the Internet is information transmitted from the screen or speakers of a networked item of information and communication technology (ICT), through the human eye or ear, to the visual cortex or primary auditory cortex of the brain; as "input," it is information uploaded to networked computer databases, via various tactile, visual or auditory devices.

There are, of course, a host of further facts that must be in place for the Internet to function on this level. First, hardware (intended here in the broad sense of everything from fibre-optic cabling and wi-fi terminals, to computer processors, keyboards and mobile phone touch-screens) must be machined and assembled. Second, software (including background programming and foreground text and image-driven browsers), must be installed and functioning. Third, an Internet usership is presupposed. This usership has varied historically.

Today, however, it is taken to incorporate all manner of human roles, titles, and activities, in principle, if not in fact. What we call "the Internet," then, in broad *de facto* terms, is an information circuit conditioned by three classes of element: hardware, software, and types of usership. These elements should be termed "empirical" because the role they play in constituting the Internet is, in principle, observable and measurable.[6]

The second transcendental question concerns conditions that must be in place for empirical facts concerning the Internet to be possible. This must be posed because the Internet cannot be sufficiently explained in terms of its empirical elements.

First, the Internet is not simply the hardware making it possible. This is because it is not any of its material parts in isolation, and because these parts are subject to historical change. This is to say that the Internet is no more a fibre optic cable than a networked database or computer keyboard: first, because these are parts in a larger material whole; second, because every part of this whole is, in principle, replaceable. To illustrate, consider that the tendency at the fundamental level of Internet hardware for the past twenty years has been for fibre optic cabling to replace "twisted pair" copper telephone wiring (Miller 2005). From here, the current tendency is towards a hybrid between fibre-optics and wireless, and, further, towards "next generation wireless networks" (Santi 2012). The point is that [386] "the Internet" is irreducible to these elements insofar as it is presupposed to endure their changes.

Second, the Internet is not reducible to the software making it possible. This is because this software presupposes hardware as its material base, and because, in doing so, it is subject to the same mereological conditions (that is, relations between "parts" and "wholes") as hardware: just as the Internet cannot be reduced to background software like Linux or MS-Powershell, nor can it be reduced to the foreground text and image driven software these make possible, from browsers like Firefox and Internet Explorer to iTunes or

the latest iPhone app. As with hardware, then, "the Internet" is something in excess of the software making it possible (Zittrain 2008; Chun 2011, 3; Schäfer 2011, 68).

Third, the Internet is not reducible to any of the types of usership involved in it. This is because these activities presuppose the material and formal conditions engineered by hardware and software, and because, in doing so, they too are subject to historical change. Fifteen years ago, for example, it would have been appropriate to analyse Internet usership primarily in relation to material conditions set by desktop computers. Given advancements in wireless networks and mobile ICTs, however, such a treatment would be anachronistic today. Again, fifteen years ago, some authors still described the Internet in terms of "virtual reality" (Graham 1999). Today, however, the tendency towards the realisation of what Weiser famously described as "ubiquitous computing" (1991) means that it makes more sense to describe the contemporary user's relationship in terms of what Castells has called "real virtuality":

> With the prospects of expanding infrastructure and declining prices, it is not a prediction but an observation to say that on-line communities are fast developing not as a virtual world, but as a real virtuality integrated with other forms of interaction in an increasingly hybridized everyday life…. [A] new culture is forming, *the culture of real virtuality*, in which the digitised networks of multimodal communication have become so inclusive of all cultural expressions and personal experiences that they have made virtuality a fundamental dimension of our reality. (Castells 2010, xxix-xxxi, original emphasis)

A more commonplace way of describing related changes occurs in recent discussions of the shift towards "Web 2.0" and related concepts of "social" and "participatory" media. Consider, for example, the following [387]:

> There [was] never a shortage of celebratory and condemnatory popular discourse about the Internet – even in its early days. Yet, the popular discourse was quieted as the hopes and dreams of the Internet … faded with the burst of the dot-com bubble in the 1990s and the rise of control and surveillance over and through ICTs after September 11, 2001. The advent of Web 2.0, with its newly proclaimed potential and promise, however, has rejuvenated the hopes and dreams of enthusiasts of the Internet and has renewed the popular discourse. (Wong 2013, 191)

That it is possible to describe such changes in usership over a fifteen-year period (from sedentary to mobile, from "virtual reality" to "real virtuality," towards "Web 2.0") serves as indirect proof that "the Internet" is presupposed, in each case, to be irreducible to these changes. To develop this, note the role of the term in Wong's description: "the Internet" is the constant around which "popular discourse" varies. On an engineering level, this is because the Internet literally is the "expanding infrastructure" referred to by Castells; on a broader socio-cultural level, however, it is arguable that it is because "the Internet" serves in a more metaphorically "infrastructural" sense – as a master term in the language-games of contemporary ICT users. In either case, however, the result remains the same: "the Internet" is the relative constant against which types of usership change.

Although a treatment of conditions set by hardware, software and types of usership is necessary for a consideration of the Internet, it is not sufficient. At most, "the Internet" seems to be operative through these elements, without being reducible to any of them. How, then, might a more sufficient understanding be gained? In what remains of this article, I will suggest that it may be fruitful to approach the Internet transcendentally, as an "idea."

By "idea," I mean an identifiable set of norms materialised in diverse states of affairs. As outlined earlier, my intention in describing the Internet in this way is not to

commit to idealism, nor to reify it into an autonomous or technologically deterministic force. Rather, the claim is that such a set of norms, along with hardware, software, and types of usership, is "co-constitutive" of the total phenomenon of the Internet; that is, that a set of norms concerning what the Internet is develops in historical tandem and reciprocal determination with a set of facts including hardware, software, and types of usership. As I will seek to show, approaching the Internet in this way complements established philosophy of technology approaches to "embedded values" (Brey 2000, Introna and Nissenbaum 2000). However, I will also attempt to show that the way of approaching the Internet I propose is capable of expanding upon these established approaches, by being better placed, [388] for example, to account for how norms embedded in one technological context can transcend it and influence others (for example: how norms embedded in the Internet can influence ostensibly "offline" life).

2. Determinism, Subjectivism, Optimism, Pessimism

Before attempting to outline some of the norms implicated in the idea of the Internet, it will be useful to consider the limitations of approaches that do not proceed in this way. This part therefore has three main aims: 1) to highlight problematic tendencies towards determinism and subjectivism in contemporary philosophy of technology; 2) to highlight excessive forms of optimism and pessimism in recent popular literature on the Internet that these tendencies support; 3) to show how approaches to the political and sociological dimensions of the Internet, such as those of Feenberg (2009, 2010) and Fuchs (2011), involve transcendental elements that render them better placed to critically engage the excesses described.

Consider the case of Bernard Stiegler, one of the foremost contemporary philosophers of technology in the "continental" tradition. In his key work, *Technics and Time* (1998), Stiegler lays down this principle: "the following work aims to establish that organised

inorganic [i.e. technical] beings are originarily… *constitutive*…of temporality as well as spatiality" (Stiegler 1998, 17, original emphasis). This principle, axiomatic for Stiegler's work since *Technics and Time* (1998, 14, 25, 83; 2004, 90; Stiegler, Giffard, and Fauré 2009, 42), and applied in his recent output to ICTs and the Internet (Stiegler et al. 2008, 74-82), causes him to tend towards a strong technological determinism. Usually, technological determinism is marked by the claim that technology "…[induces] certain societal effects with necessity" (Fuchs 2011, 113), or, stronger, "…that technology causes or determines the structure of the rest of society and culture" (Dusek 2006, 84). Stiegler's determinism is stronger still, however, as the inverted Kantianism involved in his reference to "temporality" and "spatiality" implies. The point is that, for Kant, time and space are *a priori* ideal conditions for the possibility of human experience, while, for Stiegler, the experience of time and space is materially constituted by technology. Stiegler's claim, then, is not that technologies are merely one set of conditions that contribute, like economic or social conditions, to the constitution of the human; rather, he takes a reified form of "Technology," at once hyperbolically and ambiguously, to be the definitive ontological condition of the human. In his terms, technics "invents the human" (Stiegler 1998, 134-179; 2010, 108; 2012, 258) [389].

It is possible to view Stiegler as the latest in a long line of "continental" thinkers tending towards technological determinism, including Heidegger, Ellul, Arendt, and Jaspers. As we have seen, a tendency in contemporary philosophy of technology is to gather these figures under "classical" thought. One issue with this is that it tends towards caricaturing "classical" thought and the "transcendental"; another, however, is that it may cause contemporary philosophy of technology to overlook other problematic tendencies in its midst, beyond determinism.

Consider, for example, Clark and Chalmers' famous article "The Extended Mind," where they make the following statement in favour of an "active externalism":

> If, as we confront some task, a part of the world functions as a process which, *were it done in the head*, we would have no hesitation in recognizing as part of the cognitive process, then that part of the world is… part of the cognitive process. (Clark and Chalmers 2011, 222, original emphasis)

The "parity principle" outlined here makes no reference to technologies and is not technologically deterministic; rather, it seeks to overcome an ontological deadlock between "internalism" and "externalism" in contemporary philosophy of mind, in favour of a more pragmatic approach to embodied "environmental" cognition (Clark 2010; Fodor 2009). However, a problem does emerge from Clark and Chalmers' reflections on the scope of their principle:

> If the [thesis of active externalism] is accepted, how far should we go? All sorts of puzzle cases spring to mind…. Does the information in my Filofax count as part of my memory? .... Do I believe the contents of the page in front of me before I read it? Is my cognitive state somehow spread across the Internet? (Clark and Chalmers 2011, 231)

Here, a Filofax, a page of text, and the Internet are presupposed to be qualitatively similar external "parts of the world." While such a levelling may be useful for an approach centred on subjective cognitive processes (Menary 2006; Hurley 2010), the problem from a philosophy of technology perspective is that it ignores technologically relevant differences in value in a way that is symptomatic of Clark and Chalmers' "Extended Mind" approach more broadly (Kiran and Verbeek 2010; Aydin 2013): the fact that the artefacts considered are of incommensurate economic value, for example; or that they do not have the same

sociological impact; or that they are entirely distinct as "archives," since information uploaded to the [390] Internet is networked, "greased" and open to multiple users in a way that information written in a Filofax is not (Moor 1997).

Insofar as it ignores such differences, it is possible to view "Extended Mind Thesis" as symptomatic of a subjectivist tendency in philosophical treatments of technology (Aydin 2013). In relation to the Internet, it is possible to detect this in the so-called "neurological turn" in work by thinkers like Turkle, Lanier, and Bilton (Lovink 2010; Wong 2013). This turn has been characterised as "… an interiorisation of … [social and cultural] concerns over Web 2.0" (Wong 2013, 196), and what is problematic about it from the perspective of this article is that it is not "transcendental" enough: instead of attempting to consider and critique norms involved in particular technologies, it leads towards a reified "Subject," just as the deterministic tendency led towards a reified "Technology."

What renders these tendencies especially problematic in the case of the Internet is that, rather than critically examining extremes of rhetoric surrounding the technology, they can tend to support them. To illustrate, consider the following from Schmidt and Cohen's *The New Digital Age*:

> [Through Internet technology] [o]ur own neurological limits, which lead us to forgetfulness and oversights, will be supplemented by information systems designed to support our needs. Two such examples are memory prosthetics – calendar reminders and to-do lists – and social prosthetics … Suggestion engines that offer alternative terms to help a user find what she is looking for will be a particularly useful aid in efficiency by consistently stimulating our thinking processes, ultimately enhancing our creativity, not pre-empting it (Schmidt and Cohen 2013, 16-7).

While tending towards a rhetoric of optimism, this excerpt demonstrates both determinist and subjectivist tendencies: the former is evident in the characterisation of prosthetics as agents of change that unequivocally "will" bring about certain effects; the latter is evident in the use of "we" and "our" to reify a form of subjectivity which, it is presupposed, will unequivocally want the values of "supplementation" and "efficiency."

Such tendencies are also common in the work of thinkers tending towards pessimism. Consider, for example, the following from Carr's *The Shallows*:

> Our use of the Internet involves many paradoxes, but the one that promises to have the greatest long-term influence over how we think is this one: the Net seizes our attention only to scatter it … The Net's cacophony … [391] prevent[s] our minds from thinking either deeply or creatively (Carr 2010, 118-9).

Here, the tendency towards determinism is even more pronounced: whereas Schmidt and Cohen describe varied technologies with different affordances, Carr reifies the "Net" into an agent capable of "seizing" and "scattering." In contrast, his tendency towards subjectivism initially seems weaker, perhaps because it speaks from the perspective of a threatened subject. The paradox, however, is that this subject may only be threatened to the extent that it has a strong sense of itself; specifically, Carr seems to be speaking from the perspective of an entrenched Enlightenment subject that seeks to be "disengaged" and "autonomous," and that views technological change *per se* as threatening (Wong 2013).

From shared determinist and subjectivist tendencies, these excerpts arrive at diametrically opposed conclusions: Schmidt and Cohen are optimistic that prosthetics will "enhance," not "pre-empt" creativity; Carr holds that the "Net" will definitively "prevent" it. This is an "antinomy" in the Kantian sense – a metaphysical deadlock resulting from faults in shared assumptions (Kant 2000, 459-559). Here, the deadlock is whether the Internet

enhances or impedes creativity; the assumptions are that determinist and subjectivist tendencies are appropriate to resolve this.

Antinomies like these proliferate throughout contemporary popular literature on the Internet, generating excesses of both optimism and pessimism.[7] The question facing us concerns how philosophy of technology might respond to them. This question, however, is in itself problematic, for seemingly contradictory reasons: first, it seems to presuppose too clear a distinction between "popular" and "philosophical" work; second, such a distinction is, as we have seen, made questionable by the fact that certain strands of philosophy of technology involve determinism and subjectivism.

A way out of these difficulties is to emphasise the cohesion of approaches that engage particular technologies "transcendentally," in terms of their conditions. One such approach is Feenberg's Critical Theory of Technology, which involves a "two level instrumentalisation theory" that Feenberg does not hesitate to characterise as transcendental:

> [If we] analyse the transcendental conditions of meaning as well as function [we]… arrive at something resembling the two level instrumentalisation theory I have proposed. In that theory the most general functional conditions of possibility of technology appear as historical constants while the [392] conditions of realisation vary much more widely. Those latter conditions have to do with the ethical and aesthetic meaning of technologies … These aspects of technology are broken down into categories that reappear in varying configurations in different societies, but they do always appear and so can be properly considered essential conditions of possibility as well. (Feenberg 2009, 228)

Another such approach is Fuchs' *Critical Media and Information Studies*, which draws on a Marxist philosophical legacy that he also does not hesitate to characterise as transcendental:

> All Marxist thinking to a certain extent contains transcendental elements … Marxist transcendentalism is materialist … [I]t is an immanent transcendentalism or transcendental immanentism. (Fuchs 2011, 27-8)

At the beginning of this article, we witnessed Verbeek criticise "transcendental" approaches for valorising conditions of possibility that "... overstep and transcend … empirical reality …" (Verbeek 2005, 7). This criticism did not sufficiently reckon with approaches like those of Feenberg and Fuchs, which emphasise that transcendental conditions of possibility emerge from, and in strict relation to empirical reality. This is what Feenberg implies when he emphasises that functional conditions appear as "historical constants," and that ethical and aesthetic conditions, although not "essential" in a strictly *a priori* sense, can be considered in this way when evaluating similarities and differences between them. Likewise, it is what Fuchs implies when situating his approach as an "immanent transcendentalism." In both cases, we have approaches that claim: 1) that conditions of possibility are normative and should not be treated simply as naturally given "facts," and, 2) that these conditions are not "eternal" or "universal," but historically contingent.

Recognising the compatibility of these claims allows Feenberg and Fuchs to pursue nuanced transcendental approaches that resist determinism and subjectivism: first, recognition of the gap between normative conditions and empirical reality allows for a critique of "Technology" and the "Subject" as historically contingent norms, and not as naturally given facts; second, recognition that conditions are contingent allows for nuanced empirical work on variations between these conditions – from politically focused case

studies of Minitel and the Japanese experience of globalisation in Feenberg's work (2010), to sociological surveys of social media in that of Fuchs (2011).[8] [393]

3. The Idea of the Internet

In the spirit of the avowedly "transcendental" aspects of the approaches of Feenberg and Fuchs, the aim of this part is to describe four core clusters of norms pertaining to the idea of the Internet. These norms are not intended to be "eternal" or "universal," but contingent to this historical moment. Likewise, the set proposed is not intended to be exhaustive or uncontroversial; rather, it is intended to be suggestive, in favour of a broader transcendental approach to outlining the norms that condition the contemporary experience of the Internet.[9]

3.1. *Cluster 1: Neutrality*

The first norm is paradoxical. It is the norm that denies that the Internet is a set of norms. This presents the Internet as a naturalised fact, without selective norms in and of itself.

Given this norm, it becomes paradoxical in at least two senses to claim that neutrality is a norm worthy of treatment in this context: first, because common sense takes it to be the absence of value; second, because, since Winner's seminal article "Do Artifacts Have Politics?," it is an established item of *doxa* in philosophy of technology that design practices are capable of investing artefacts with definite ethico-political norms (Winner 1980; Latour 1992; Joerges 1999; Brey 2000; Verbeek 2005).

With the established view, a thoroughgoing transcendental approach to the Internet would reject the common sense standpoint that technologies are neutral. The problem, however, is that the established view does not go far enough in considering that it is always possible, *in principle*, for "neutrality" to be re-invested into technologies, in line with what Žižek has diagnosed as "ideological fantasy":

> [W]e have established a new way to read [Marx's famous definition of ideology in terms of] "they do not know it, but they are doing it"… [People today] know very well how things really are, but still they are doing it as if they did not know. The illusion is therefore double: it consists in overlooking the illusion which is structuring our real, effective relationship to reality. And this overlooked, unconscious illusion is what may be called the ideological fantasy. (Žižek 1989, 32-3)

The ideological fantasy of neutrality with reference to the Internet consists in knowing that it has embedded norms, but behaving as if it did not.[10] This fantasy is attractive because it foregoes the need to seek out and be critical of norms, and is not something that extant approaches to embedded values in philosophy of tech-[394]-nology, such as those of Brey (2000) and Introna and Nissenbaum (2000), are well placed to confront. This is because, post-Winner, these approaches tend to take the description and "exposure" (Brey 2000) of embedded values to be sufficient, without addressing the capacity of ideological fantasy to resist this. A way out of this problem, in line with the general argument of this article, is to move towards a more thoroughgoing transcendental approach that, by attending to the distinction between normative conditions and "empirical reality," is capable of recognising the potential for "neutrality" itself to be paradoxically re-invested, as a norm.

3.2. *Cluster 2: Unity and Familiarity*

The second normative cluster holds that the Internet is a unified and familiar entity, such that all sites are, in principle, accessible from any point of access. This presents the Internet as an entity that is, in terms of its architecture, inherently open and democratic (Ryan 2010, 31-44; Castells 2010, 385-94; Schmidt and Cohen 2013; Dean 2005).

The facts are that access to the Internet is always limited. Technically, it is limited by factors like encryption, censorship, and the "standardisation" of scripts (Bortzmeyer 2012). Socio-economically, it is limited by "digital divide" factors like geographical location as well as types of software and hardware affordable to the user (Borletti 2012). Cognitively, it is limited by factors like levels of attention and technical knowledge manifested in particular userships (Poster 2006, 231-49; Dean 2005, 66-9).

But how are limitations like these reflected in everyday ways of referring to "the Internet"? In English, given what we have described, it would be factually appropriate to always refer to the Internet through the indefinite article, as suggested by Internet Studies pioneers such as Steve Jones (2002). That way, when one goes online, it would be acknowledged that one is accessing a limited set of sites and never the totality – "an Internet," not "the Internet." In English, such distinctions between the global and local are much better reflected in technical discourse, as in the distinction that Internet governance specialists make between the "Western" and "Chinese" Internets (Grumbach 2012, 403), or, for example, in the distinctions that engineers make between Wide-Area-Networks (WANs) and Long-Area-Networks (LANs) (Santi 2012). Nevertheless, it is a marked tendency of everyday natural language to simplify and overlook these distinctions, with problematic results.

Today, Internet governance specialists report direct correlations between the process of language extinction and a process of globalisation in which ICTs and [395] the Internet are complicit (Prado 2012). This is because ICTs tend to promote certain "prestigious" languages at the expense of marginal and regional idioms (Prado 2012, 38-9; Oustinoff 2012b, 409; Borletti 2012, 358). At the risk of seeming to compound this error, it is worth considering two tendencies to have emerged in how so-called "prestigious" languages of European provenance make everyday reference to the Internet.[11] First, there is a tendency exhibited in English, German, and Portuguese to retain use of a definite article

unrelated to an indefinite article, referring, respectively, to “the Internet,” “Das Internet,” or “A Internet.” Second, there is a tendency in Spanish, French, and Italian to drop the definite article, and refer simply to “Internet.” On one level, these tendencies could be viewed as mere atavisms of linguistic habit. Speculatively, however, we may suggest that they indicate a tendency to view the Internet as something singular, “global,” unified, and familiar.

Re-consider the case of English, which, among “prestigious” languages, remains the most prevalent on the Internet, although its influence is waning.[12] In what cases in everyday English do comparable repressions or omissions of the indefinite article occur? First, it is a tendency in English to reserve use of a definite article unrelated to an indefinite article for singular and unrepeatable events on a cosmological scale. Examples of this include “The Big Bang,” “The Birth of Christ,” or “The Birth of Mohamed,” each of which it would seem absurd to refer to through the indefinite article (“A Big Bang” or “A Birth of Christ”). Second, English omits both articles when referring to proper names, and use of the proper name alone, without qualifying formalities, tends to be reserved for cases where familiarity is presupposed.[13]

From here, we may speculate that the two tendencies noted in “prestigious” European languages reflect a broader tendency, in line with a logic of globalisation, to idealise “the Internet” as an event that is at once singular and of cosmological importance; what gets overlooked by this is that access is always limited and that a plurality of “Internets” exist, cut off from one another by reified forms of economic, political, and social inequality (Fuchs 2011, 322-49; Dean 2005).

3.3. *Cluster 3: Connectivity, Novelty and Speed*

The third cluster holds that increased connectivity, novelty, and speed in communications are absolute virtues. This presents the Internet as offering infinite potential for the modification of knowing, communicating, and being.

Eighteen years ago, Nicholas Negroponte, founder of MIT's media-lab and one of the key Internet optimists before the dot-com bubble of the late 1990s, [396] summed-up what he saw as the situation of connectivity, novelty, and speed at the fundamental level of Internet hardware as follows:

> Think of the capacity of fibre as if it were infinite. We literally do not know how many bits per second we can send down a fibre…. Research results indicate that we are close to being able to deliver 1,000 billion bits [1 Terabit] per second. This means that a fibre the size of a human hair can deliver every issue ever made of the Wall Street Journal in less than one second. (Negroponte 1996, 23)

As of March 2001, the record for data transmission through a fibre optic cable had exceeded Negroponte's figure by ten times, standing at 10,000 billion bits (10 Terabits) (Hecht 2001). As of September 2012, the figure had been exceeded a thousand times over, with the record for data transmission standing at 1 Petabit (1000 Terabits) per second (NTT 2012).

Among Internet optimists, the tendency is to seize on statistics like these as fulfilment of the ontological and epistemological presuppositions implicit in Negroponte's commentary (Schmidt and Cohen 2013, 3-11). Ontologically, Negroponte implies that we should act "as if" the being of fibre optics offers infinite potential for fast and novel data transfer. Epistemologically, he implies that, since "we … do not know" how many bits per second can be sent down a fibre, research should always push this threshold.

What these figures also record is that, at the material level of Internet technology, increases in connectivity, novelty, and speed are presupposed to be absolute virtues. In terms of the research this makes possible, there is nothing objectionable about this: it is simply a principle for exploring the potentialities of a particular type of matter. As the first part of this article sought to show, however, and as the weight of work in politically- and

sociologically- oriented philosophy of technology and Science and Technology Studies supports (Winner 1993; Latour 2007; Fuchs 2011; Feenberg 2012), "the Internet" is not reducible to the material level on which this research takes place. A problem, therefore, arises when the principle is taken as a default for other types of hardware, software, and usership implicated in the broader phenomenon of the Internet.

If the principle is that fast and novel data connections should be made because they can be made, and if this is taken as a default for the entire Internet, it raises the spectre of the potentially limitless supersession and obsolescence of all types of hardware, software, and usership implicated in the phenomenon. Whereas optimists might be inclined to view this as a form of online Schumpeterian "cre-[397]-ative destruction" (Castells 2010, 215), pessimists are inclined to meet it by reifying connectivity, novelty, and speed as essential characteristics of an unstoppable and technologically deterministic "Internet" (Morozov 2013). As we saw above, however, the problem with both these tendencies is that they are insufficiently transcendental: instead of considering the Internet as a whole with qualitatively diverse conditions and parts, they mistake a perception of developments at the fundamental level of hardware for the whole.

A more promising transcendental trajectory involves situating the Internet itself within broader wholes; that is, by analysing it in terms of its economic, political, and sociological conditions. When this occurs, it emerges in terms of how contemporary globalised capitalism esteems novelty, connectivity, and speed as core values (Dean 2005; Feenberg 2012; Castells 2010, 500-9). What is equally important from the perspective of this article, however, is that such approaches should not lose sight of how these values manifest themselves phenomenologically. This is crucial if they are to contribute to a more thoroughgoing "transcendental" approach aimed at investigating how values involved in the Internet manifest themselves at diverse levels, and is something that can be achieved by

considering the habits of production and reception that particular forms of Internet-based technology and media encourage.

To develop this, consider the example of the Wall Street Journal from Negroponte's above commentary. Quantitatively, it is trivial: whether one wants to download every issue of the Wall Street Journal or the entire oeuvre of a novelist, the scale is the same: in each case, one is dealing merely with "atoms" that have been transferred into "bits" (Negroponte 1996, 11-3). The problem, however, is that such an equivalence does not hold qualitatively, whether on a political, a sociological, or a phenomenological level.

The Wall Street Journal is a daily newspaper dealing in the fluctuations of stock markets; whether in the case of the first broadsheet of 1889 or the online version of today, its writers and readers are united in the (capitalist) presupposition that the words it contains will deal in vast networks of connectivity, novelty, and speed and that their value as "news" will be quickly superseded. The problem arises, then, when values like these, reified by what Feenberg calls the "consumption model" of the Internet (2012, 11-2), or by what Dean calls "communicative capitalism" (Dean 2005, 54-7), are taken to apply for all other forms of communication. What gets esteemed by these models, according to Dean, is the mere circulation of messages, independent of the value of their content or the status of their senders and receivers (2005, 58). What gets overlooked, on the other hand, [398] are forms of communication that demand more time consuming conditions of production and that aim at more enduring transmissions of meaning. Viewed as "bits" of information, these forms, including works of art, science, philosophy, literature, and investigative journalism, are the ontological equivalents of news snippets, adverts, and stock market figures; in terms of why and how they are produced, however, they are incommensurable, whether considered on a political, sociological, or phenomenological level.

3.4. *Cluster 4: Supersession and Integration*

The fourth cluster holds that the Internet is capable of superseding and integrating all other forms of communication. This presents the Internet as a *telos* for previous media.

The contemporary Internet is still predominantly text based (Adegbola 2012, 319), but as a digital medium capable of reducing discrete media to the common denominator of the bit, it seems, according to a pervasive rhetoric that goes hand-in-hand with the "consumption model" and "communicative capitalism," to offer potentially limitless capacity for incorporating other media: from photographs of cave paintings and old masters, to books, money, audio, video, and even material things, as heralded, in different ways, by 3D printing (Rifkin 2014, 89-109) and the so-called "Internet of Things" (Ashton 2009). On this view, digitisation works like an applied form of Hegelian sublation (1977, 479-95), effecting with one and the same gesture the negation of diffuse "old" media while recuperating their content for "new" media.

How can this be approached transcendentally, in terms of its conditions? Since the sublative model implies a *telos*, it may be worth starting near the end of the story outlined above, then working back: what, then, is the "Internet of Things," and what are its conditions of possibility?

According to the originator of the term, Kevin Ashton, the "Internet of Things" outlines a vision of a fully networked world where "things" are no longer "… dependent on human beings for information"; rather, through Radio Frequency Identification (RFID) technology, "we … empower [things] with their own means of gathering information, so they can see, hear and smell the world for themselves" (2009). As Mattern and Floerkemeier elaborate:

> The Internet of Things represents a vision in which the Internet extends into the real world embracing everyday objects. Physical items are no longer disconnected from the virtual world, but can be controlled remotely and can act as physical access

> points to Internet services. An Internet of Things [399] makes computing truly ubiquitous … Using sensors [Smart objects] are able to perceive their context, and via built-in networking capabilities they [are] able to communicate with each other, access Internet services and interact with people. (2010, 107)

What are the conditions for this vision? First, a traditional metaphysical dualism: on one side, the "disconnected" "virtual world" of the contemporary Internet, where things, Ashton writes, "are almost wholly dependent on human beings for information" (2009); on the other, the "real world" of impoverished "everyday objects." Second, the *telos* which is expected to sublate this, according to Mattern and Floerkemeier, is computing made "truly ubiquitous" through the "Internet of Things."

"Truly ubiquitous" is a rhetorical elaboration on Weiser's concept of "ubiquitous computing" (1991); if it is vague as a criterion, this may be because it is more expressive of a prior transcendental evaluation than an expected future state of affairs.

This relates to Castells' concept of "real virtuality," as discussed earlier. Elaborating on this, Castells writes:

> There is no separation between "reality" and ["virtual"] symbolic representation. In all societies humankind has existed in and acted through a symbolic environment … [W]hat is historically specific to the new communication system, organised around the electronic integration of all communication modes from the typographic to the multisensorial, is not its inducement of virtual reality but the construction of real virtuality. (Castells 2010, 403)

On this account, "physical items" have never been "disconnected from the virtual world" in the manner required by Mattern and Floerkemeier's concept of "truly ubiquitous"

computing. This is because, for Castells, “virtual reality” does not refer to a domain that is separate from the “real world,” so much as to the “symbolic environment” in which real world communications have always taken place. As he elaborates:

> [R]eality, as experienced, has always been virtual because it is always perceived through symbols that frame practice with some meaning that escapes their strict semantic definition. (Castells 2010, 403)

What is historically novel, Castells claims, is “real virtuality.” As discussed earlier, he characterises this in terms of a culture “in which … digitised networks [400] … have become so inclusive of all cultural expressions and personal experiences that they have made virtuality a fundamental dimension of our reality” (2010, xxix-xxxi). This concept differs from “truly ubiquitous” computing and the “Internet of Things” insofar as it is transcendentally reflexive – whereas the latter two concepts are conditioned by an unexamined metaphysical dualism, Castells characterises “real virtuality” as a construction contingent on the prior acceptance of “organising” values that aim at the supersession and integration of previous media.

It is transcendentally naïve for Mattern and Floerkemeier to claim that “the Internet of Things represents a vision in which the Internet extends into the real world embracing everyday objects.” This is because the Internet is already present in the real world, not as a “virtual world” to which it refers, nor simply as a network that links it up, but as a transcendentally conditioning set of values (including those of supersession and integration) that is normative of the forms of communication that take place in the contemporary “symbolic environment”; empirically, this is evident in diverse phenomena, such as the tendency of other media (whether “new” or “old”) to make ubiquitous reference to the

Internet and to mimic the "participatory" and "interactive" norms of new media (Poster 2006).

4. For a Transcendental Turn

Having suggested this small set of norms, this article will now conclude in favour of a turn in perspective upon them: away from an approach which, by ignoring the transcendental, apprehends entities like the Internet in a narrowly empirical sense; towards an approach that opens the way for an expanded philosophy of technology, capable of being concomitantly better focused on both empirical issues of fact and transcendental issues concerning our presuppositions on the conditions for these facts.

Towards the end of the *Critique of Pure Reason's* "Transcendental Dialectic," Kant claims:

> If one can show that although the three kinds of transcendental ideas (psychological, cosmological and theological) cannot be referred directly to any object corresponding to them … and nevertheless that all rules of the empirical use of reason under the presupposition of such an object … lead to systematic unity … then it is a necessary maxim of reason to proceed in accordance with such ideas. And this is the transcendental deduction of all the ideas of speculative reason, not as constitutive principles …, but as regulative principles. (Kant 2000, 606) [401]

What this passage implies is that, were he to have encountered it, Kant would have viewed the Internet as a "regulative idea" that subjects its users to a species of "transcendental illusion."

For Kant, a transcendental illusion is a mistake made necessary by the limits of human reason. This is to say that Kant takes there to be certain ideas which human reason cannot

fail to reify, even though the entities to which these ideas are presumed to refer can never be the object of an experience. Kant famously deals with three such entities, each corresponding to one of the "transcendental ideas" outlined above:

- The *psychological* idea of the self or soul, as that which persists throughout empirical changes undergone by the human subject.
- The *cosmological* idea of the totality of the world or universe, as a completely linked system of causes and effects.
- The *theological* idea of God, as the purely rational first cause of all that exists.

These ideas provoke a "transcendental illusion" in the following sense: empirically, they cannot be the direct object of an experience; normatively or "transcendentally," however, they are presupposed as conditions for the possibility of the types of experience to which Kant takes human beings to be subject. This is to say that, for Kant, although one can never encounter one's identical soul, the linked totality of all that exists, or God as the object of an experience, one ought to presuppose them as ideas so that one's thinking and one's ethical conduct within the world will be coherent and meaningful (Kant 1996, 226-58).

Kant's way of expressing this, as in the above passage, is to view these ideas, not as "constitutive," but "regulative." By this, he means that it is not a really existing "soul," "world totality," or "God" that impresses the ideas, from "outside," as it were, but rather human reason that prescribes them, as rules for behaviour. This is to say that the "soul," the "world totality," and "God" are, for Kant, more fundamentally sets of norms than facts, originating not from objective states of affairs, but rather from an impulse to give coherency, unity, and sense to thought and action in the face of such states of affairs.

Having suggested this potential Kantian transcendental framework for viewing the Internet, I will now conclude this article with three further suggestions that will gradually

take us away from the metaphysical and normative presuppositions that are involved in it, in favour of an expanded sense of the "transcendental" [402] that may have the potential to open new avenues of research in philosophy of technology.

The first suggestion is that the Internet, in addition to any of the hardware, software and types of usership implicated in it, is a transcendental idea, which is to say a set of norms that is not manifest as an object of experience in the same way as the other elements are. This suggestion breaks with Kant's stronger claim that the transcendental ideas he deduces ("God", the "soul," and the "world") are a universal and eternal *a priori* set; rather, as I have attempted to show in this article, the set of norms involved in the case of the Internet is historically related to developments in hardware, software, and types of usership, and this is why detailed empirical work of the type carried out by Feenberg (2010) and Fuchs (2011) is required to determine where and how these norms are manifest.

The second suggestion is that the act of critiquing these norms reveals them to be regulative, not "constitutive." In the previous part, four normative clusters pertaining to the idea of the Internet were outlined. These norms, I suggest, are regulative. This means that, like Kant's ideas of the soul, "the world totality," and God, they are proposed as if they originated from an experienceable entity. Thus, "the Internet," in turn, can appear as determining or constitutive for the thought and action of certain types of subject in relation to it. What differs between the cases of Kant's ideas and that of the Internet, I suggest, is not the regulative form of the proposition, but rather the type of rationality that does the proposing, and the type of subject to whom it is proposed. In Kant's case, a unified reason is presupposed, and it is taken to regulate thought and action *a priori*, in accordance with the enlightenment ideal of "man," the rational subject. In the case of the Internet, plural and competing rationalities are involved in the production of different forms of subjectivity – including, for example, the rationalities of political action groups, leisure and entertainment, and of marketing, consumerism, and capitalism.

The third suggestion is that, if any of the particulars of the Kantian approach outlined in this part should seem anachronistic or unappealing, this should not distract from a broader point: Kant's "transcendental idealism" is only one example of a more general transcendental approach, and recognition of this has the potential to make philosophy of technology concomitantly better focused on both empirical issues of fact and transcendental issues concerning our presuppositions on the conditions for these facts.

At the beginning of this article, we saw Verbeek situate Kant at "the zenith" of transcendental philosophy. This was an ironic tribute, based on a caricature of the transcendental as an otherworldly "realm." Of the two terms involved in Kant's [403] "transcendental idealism," however, Verbeek focused on the wrong one: if either term denotes "otherworldly" metaphysical presuppositions, it is "idealism"[14]; "transcendental" simply stands for a philosophical approach involving critical enquiry into the conditions of experience.

Understanding that "transcendental" denotes an approach and not a "realm" takes Kant down from his zenith and places him within a rich lineage of thinkers to have pursued this approach. An inexhaustive list of those to have done so would, I suggest, include Hume, Nietzsche, Hegel, Marx, Freud, Husserl, Frege, Wittgenstein, Deleuze, Derrida, and Habermas: insofar as these thinkers enquire critically into the conditions of experience, they think "transcendentally"; insofar as they enquire in diverse ways, making diverse metaphysical presuppositions explicit along the way, they demonstrate the evolution of the transcendental approach, considered as an approach that problematizes presuppositions on the conditions for the objects of thought and experience.

The transcendental approach is not, however, restricted to "classical" philosophical thinkers, nor even to philosophy *per se.* On the contrary, its influence can be observed in diverse contemporary disciplines, as I have attempted to highlight with reference to contemporary philosophy of technology (Feenberg), sociology (Fuchs, Castells), and media

studies (Chun, Dean). In each of these cases we find approaches that are, I suggest, vitally "transcendental" insofar as they enquire critically into the conditions of contemporary thought and experience.

Since philosophy of technology's "empirical turn," a *doxa* has blocked the field's potential to engage with the history of the transcendental in philosophy, and, correlatively, to bring the resources of this approach to bear on technologies like the Internet that exceed established forms of common sense on what constitutes an empirical object. In an attempt to work against the first issue, this article has referred to Kant. In an attempt to work against the second, it has referred to the case of the Internet. The paradoxical conclusion to emerge from this is that philosophy of technology can become more empirically focused on technological facts and phenomena by becoming more, not less, "transcendentally" focused on their conditions – the key, I suggest, is not to disavow either the transcendental or the empirical, but to try to think further in both directions.

Notes:

[1] The Internet is the "network of networks" through which data transfer occurs between Internet Protocol Suite (TCP/IP) enabled computers. In a less formal sense, "the Internet" is used in English to cover related but technically non-synonymous terms [404] (from everyday contractions like "the Net," "the World Wide Web," and "the Web," to more idiomatic descriptions like "Interwebs' and 'Web 2.0"). Where further qualification is not given, this article uses the term in the less formal sense (following the practice of Wong 2013, and of Beer and Burrows 2007).

[2] My use of the term "*doxa"* here is strategic, and related to the preceding claim that the aim of this article may seem 'paradoxical'. I take the extract from Verbeek to express a form of contemporary "*doxa"* or "common sense" in philosophy of technology, according to which "transcendental" approaches abstract from the empirical and are not 'fine-grained' enough to do justice to the nuances of case studies of technologies in action; in contrast to this, the aim of this essay is *para-doxical* (that is, "against *doxa"*) insofar as it tries to demonstrate that transcendental approaches can be empirically nuanced, and, further, that certain technologies (such as the Internet) may be so in excess of established senses of "the empirical" as to require avowedly transcendental treatments. The sense of "paradox" deployed here owes a lot to Deleuze (see, for example, 2004, 164-208).

[3] The structure of a transcendental argument is as follows:

> [T]ranscendental arguments are taken to be distinctive in involving a certain sort of claim, namely that *X* is a necessary condition for the possibility of *Y* – where then, given that *Y* is the case, it logically follows that *X* must be the case too. (Stern 2013)

I take it that this structure can be used to support diverse metaphysical positions (for example: Kant's "transcendental idealism," Marx's "historical materialism," and Deleuze's "transcendental empiricism"), and that the "transcendental" approach is not tied to, for example, Kant's "transcendental idealism." For more on this, see part four below.

[4] With reference to endnote 3, "Y" and "X" in this article are, respectively, "the Internet" and "a set of values or norms." The argument of the article is that X is a necessary (but not sufficient) condition for Y, and that the contents of X are historically contingent.

[5] See endnote 4 above. Against Stroud's focus on epistemology, Stern suggests that transcendental arguments have a more promising outlook in ethics (Stern 2013).

[6] It is tempting, but potentially misleading, to see a neat fit between the elements identified here and an Aristotelian causal taxonomy (Aristotle 1995, 1600). For a more detailed contemporary taxonomy, see Søraker 2011.

[7] They arise over such issues as whether the Internet enhances or debases culture and morality, cognition, political engagement, and our senses of "self," "place," and "embodiment." On the optimistic spectrum, we find writers like Kelly (2011), Bilton (2010), Shirky (2010), and Kurzweil (2005). On the pessimistic spectrum, we [405] find Franzen (2013), Keen (2007), Turkle (2011), Lanier (2013), and Morozov (2013). For a more thoroughgoing survey of these tendencies, see Wong 2013.

[8] The approaches of Feenberg and Fuchs are transcendental, but do not fit Verbeek's caricature of "classical" philosophy of technology. Something they arguably do lack, however, is a sufficiently developed phenomenological dimension, focused on the experience of artefacts. A transcendental approach that fused the two would, like the "postphenomenology" of Ihde (1993, 2012) and Verbeek (2005, 2011), describe how experience is conditioned in the use of particular technologies, but would also devote deeper critical attention to the political and sociological norms involved in conditioning these technologies. For reasons of space, the following part of this article can only suggest such an approach, but it is something I intend to pursue in further work.

[9] Very speculatively, the approach developed in this part may be considered a post-Husserlian form of "imaginative variation" (Husserl 1988, 69-72). By this, I mean that it is an attempt to distinguish between the contingent and (relatively) invariant features involved in how the idea of "the Internet" is presented.

[10] See, for example, Dean on the "fantasy of abundance" in the context of the Internet (2005, 59-60). In broader terms, current debates on "net neutrality" are worthy of consideration in this context (Wu 2014).

[11] The aim here is not to compound the error of linguistic marginalisation, but to critique it from the inside by drawing attention to how so-called "prestigious" languages are complicit in promoting this error through their prevalent everyday ways of referring to "the Internet." With the exception of Italian, the six languages considered here are all among the top ten used on the Internet (Borletti 2012, 361-2), and are distinct from the remaining five (Chinese, Japanese, Arabic, Russian, and Korean) in that they use definite and indefinite articles in comparable ways. The remaining five languages are closer to the second tendency in terms of how they refer to the Internet (respectively: 互聯網, インターネット, الإنترنت, Интернет, 인터넷).

[12] English constituted 75% of Internet content in 1998, but is down to below 30% today (Prado 2012, 39).

[13] When one refers to "Friedrich," "Virginia," or "Coke," and not to "Herr Nietzsche," "Mrs. Woolf," or the "Coca Cola Company," what is presupposed is familiarity.

[14] It is, for example, these presuppositions which lead Kant to his restricted set of "regulative" ideas including "God," "the soul," and "the world," all three of which are classic themes in idealist philosophy (as witnessed in the work of Plato, Descartes, and Leibniz). [406]

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